The P350 is a fully automatic pin insertion machine capable of applying reeled products from TE or other manufacturers. With inline operation, an automatic tool changer and insertion rates up to 5 per second, it is focused at fully automatic high speed operation to maximize throughput while minimizing costly scrap.

A servo powered XY table positions the PCB under a central drive station at high speed. The automatic tool changer can hold up to 3 insertion heads each capable of applying a different product. A unique rotary insertion finger allows the application of products at up to 7 different angles without rotating the PCB. This allows the P350 to apply product at different angles without a reduction in insertion rate or the potential positioning error associated with PCB rotation. An active lower anvil provides support to the PCB during insertion, can provide special actions such as clinching (when applicable) and allows for real-time force monitoring for 100% quality assurance on press-fit applications. Finally, icon driven software with touch screen provides a simple to use and intuitive operator interface.

The P350 provides a wide range of solutions for pin insertion applications. Board size capacity up to 17.5" x 17.5" [450x450 mm], quick change tooling packs, and a wide range of options make it a flexible high speed platform.

- High speed servo drives for insertion rates up to 5 cycles per second at 0.2 in [5.08 mm] pitch.
- Automatic tool changer to apply up to 3 different products on one machine.
- Rotary insertion finger can apply products at up to 7 different angles without rotating PCB.
- Real time insertion force monitoring for 100% quality assurance on press-fit applications.
- Able to process any manufacturer’s reeled through-hole or press-fit products.

**Fast Facts**

- Insertion rates up to 5 per second at 0.2 in [5.08 mm] pitch.
- Up to 3 different products can be applied in one machine.
- Apply products at up to 7 different angles.
- Active anvil for PCB support, insertion verification and force monitoring.
- Windows based touch screen interface.
- Quick change tooling packs allow production flexibility.
- Able to process any manufacturer’s reeled through-hole or press-fit products.
- Range of options including PCB vision system and board thickness measurement.
- SMEMA interface
P350 Pin Insertion Machine

Machine Description
- Fully automated inline pin insertion machine for the application of reeled pins, tabs, receptacle and similar products into PCBs.

Physical Dimensions
- Height — 70.5 in [1790 mm]
- Width/Depth (including reel holders) — 108.5 in [2754 mm]
- Length — 91 in [2310 mm] with conveyor
- Length — 57.5 in [1460 mm] without conveyor
- Conveyor Belt Height (adjustable) — 37.6 ± .6 in. [955 mm ± 15mm]
- Weight — Approx. 4,410 lb [2000 kg]

Component Capability
- Reeled components. Can be press-fit or through-hole solder components such as pins, tabs and receptacles. Can apply products from TE or other manufacturers.

Performance
- Maximum insertion rate — 5 cycles per second at a pitch of 0.2 in [5.08 mm]
- Press Force Monitoring of every component applied
- Insertion Head Change — 2 sec.
- Board Load — approx. 5 sec.
- Board Unload — approx. 5 sec.
- Fully SMEMA compatible

Vision
- Optional downward looking vision system for automatic insertion location correction.

Board Capacity
- Max. Board Size — 17.5 in x 17.5 in [450 x 450 mm]
- Max. Insertion Area — 13.5 in x 13.5 in [350 x 350 mm]
- Standard left to right feed

Insertion Heads
- Capable of up to 3 insertion heads on automatic changer system.
- Automatic changer positions one active insertion head to central servo drive.
- Rotary insertion finger on each insertion head allows the application of products at up to 7 different angles without rotating PCB.

Tooling
- Tooling is custom made to specific component specifications.
- Tooling conversion kits allow quick changeover of different products.

Required Services
- Electrical
  - Up to 480 volts \ 20 Amperes 3 phases.
  The actual volt\Amp requirement is application dependent and will be discussed at the time of quotation to assure the machine meets the available facility power.
- Air Supply
  - 600 kPa dried air

Operator Interface
- Touch screen monitor and keyboard.
- Network ready.